Abstract

Introduction: Late preterm infants (LPIs) are at greater risk for short- and long-term morbidity compared to term infants. However little is known about whether breastfeeding can reduce the adverse effect of late preterm (LP) birth on various diseases. Therefore we examined the association of LP birth with the risk of hospitalizations from 6 to 18 months of age, then explored the possible modification of this effect by breastfeeding.

Materials and Methods: Data were extracted from a nationwide population-based longitudinal survey in Japan. We restricted our analysis to term and LPIs with information on hospitalization (n=31,578). Multivariate adjusted odds ratios (aORs) and 95% confidence intervals (CIs) were estimated to evaluate the association between LP birth and hospitalization using term birth as the reference. We then examined whether breastfeeding status modified the potential adverse effects of LP birth on each health outcome.

Results: LPIs were more likely to be hospitalized for all-cause (aOR, 1.58; 95% CI, 1.35–1.86), respiratory (aOR, 1.52; 95% CI, 1.21–1.92) and gastrointestinal infections (aOR, 1.73; 95% CI, 1.14–2.62) than term infants. While LPIs had a higher risk of hospitalization for all-cause and respiratory infection regardless of breastfeeding status, we did not observe an increased risk of hospitalization for gastrointestinal infection among the exclusively breastfed LPIs, in contrast with increased risk among the non-exclusively breastfed LPIs.

Conclusions: We found that LPIs had a higher risk of all-cause and cause-specific hospitalization compared to term infants. Moreover, exclusive breastfeeding probably reduced the adverse effect of LP birth on gastrointestinal infection.